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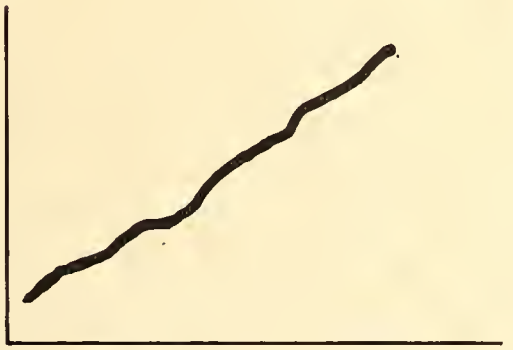

WINNERS

AND

LOSERS

1972 TO 1980

JOB SERVICE

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MONTANA LABOR/SUPPLY DEMAND ANALYSIS

REPORT FOR

APRIL - JUNE 1982

STATE OF MONTANA

TED SCHWINDEN, GOVERNOR

DEPARTMENT OF LABOR AND INDUSTRY
DAVID L. HUNTER, COMMISSIONER

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Introduction

This publication features data relating to labor supply and demand for the state of Montana. The data as reported cover the time period of April 1, 1981 through June 30, 1982. All data are reported on a statewide basis.

Description of Area

Geographically, Montana is the fourth largest state encompassing 147,138 square miles. The state's total population, however, is only 786,690 yielding a density of about 5.4 people per square mile. Almost half (47.8%) of the population is clustered around nine counties in the state. Seven of these population centers are in the more scenic, mountainous regions of western Montana.

Montana is bordered by North and South Dakota to the east, Wyoming to the south, and Idaho to the west. To the north, it shares an international boundary with Canada. The Rocky Mountains run north and south through the western part of the state. Very few mountain ranges are found in the eastern portion of the state.

The climate of the state varies with altitude. The average annual precipitation is 15.33 inches; geographically, however, it varies from a low of 9.55 inches in the southern part of the state to a high of 39.22 inches on the western slopes of the Continental Divide. Average maximum daytime temperatures in Montana cities range from 19.4 degrees Fahrenheit in January to 68.0 degrees Fahrenheit in July. Large temperature fluctuations throughout the year are common.

The problems facing Montana's labor force and industry are somewhat reflected in the geography of the state. For the most part, Montanans are attracted to the larger communities of western Montana. Unfortunately, the available jobs are not presently in these areas. Hundreds of miles separate the potential workers from the energy-related job opportunities in the rural areas of eastern Montana.

During the quarter Montana's labor force, particularly in the western part of the state, has continued to feel the effects of a depressed economy. The wood products industries have operated at very low levels for well over a year now. Housing construction also is extremely low as a result of high interest rates. State and Federal budget cuts have continued to decrease the number of people employed in government. This decrease will probably continue through the next quarter.

In a more positive light, local energy development continues to moderate the economic decline in eastern Montana. The recent surplus of oil has caused a reduction in oil field activity. Hopefully, this will be a short term condition. As summer approaches tourism should cause an increase in related jobs.

Montana's civilian labor force in June, 1982 was 396,453 people; up from 395,734 in March, 1982 but down from 408,793 in June 1981. The unemployment rate, 9.1%, (not seasonally adjusted) has risen from 7.2% in June 1981.

Limitations of Data

The data presented in this report are rather limited for many reasons. A complete and accurate file of all labor supply and demand data is not readily available. Most of the data presented are taken from the ESARS system, which represents only a small portion of the actual labor supply and demand factors.

The ESARS system in itself has many limitations. Applicants may be registered under one DOT code, although they are actually seeking work in a different classification. This causes an overstatement of supply in one DOT category and an understatement in others. "Active" applicants at the end of a quarter may have been "hired" based on a referral during that quarter. This is due to a paper lag in the system or verification of the hire that has been held back pending actual entry on the job. Similarly, the operational procedures can affect the report of "unfilled Jobs". A lag in paperwork concerning job placement or cancellation can cause a discrepancy in the category.

The data are presented on a statewide basis. Consequently, the demand occupations listed on Table 9 are a subset of Table 4, which lists occupations with a surplus of applicants. All of the unfilled job openings listed in Table 9 theoretically could be filled by qualified applicants list in Table 4 if the distance between population center and job sites was not so great. The information provided in these tables could be more beneficial to users if it were broken down into smaller geographic areas.

Labor Supply Analysis

Table 1 through 4 of this document present the information concerning the labor supply as registered with the Job Service in the state of Montana. Table 1 presents the characteristics of active Job Service applicants. Over half (59.4%) of the 29,000 persons registered are male; fifty seven percent of the applicants fall in the age range of 22 to 39 years. Most of the applicants (76.7%) have at least a high school education. Forty percent have unemployment claims filed, up from 25.3% in June, 1981.

Total available applicants at the end of the quarter by occupational category and characteristics are given in Tables 2 and 3. Partial applicants are not included in these data, thus reducing the active applicants total. Partial applicants, however, do receive equal service from the Job Service.

The four largest occupational categories of applicants are Clerical and Sales (6,143), Service (6,005), Structural (4,490), and Miscellaneous (4,534). These four categories comprise 76.1% of the available applicants. Females

comprise 78.9% of the Clerical and Sales applicants and 67.6% of Services, while males dominate Structural and Miscellaneous with 97.1% and 92.6% respectively. A little more than 50% of the economically disadvantaged applicants are registered in categories dominated by female applicants -- Clerical, Sales and Service. Ninety-seven percent of the applicants are considered fully qualified for the jobs for which they are registered, an increase of 1.6% from June, 1981.

Table 4 provides a listing of occupations which have ten or more applicants registered with Job Service. The occupations listed in this table have not varied much over the past year.

Table 5 provides a list of apprenticeship activities by trade. A total of 1,422 active apprenticeships remained at the end of the quarter. Over one-third (43.1%) of the apprentices were clustered in the categories of Carpenter, Electrician, Plumber, Electrician Lineman, Automotive Mechanic, and Installation Technician.

Labor Demand

Tables 6 through 9 of the document present labor demand information for the quarter. Tables 10 through 15 provide information concerning projected labor demand of the year 1985. The latter set of tables is presented for the user's information; an analysis is not provided.

Table 6 shows employment by non-farm industry as of December, 1981. In analyzing the table, it is quite apparent that the bulk of the employment (65.1%) is in the industries of Retail Trade, Service and Miscellaneous, and Public Administration.

Job openings available by industry for the quarter are outlined in Tables 7 and 8. Over half of the openings received (50.4%) were in Retail Trade and Services. Typically, these jobs have high turnover rates due to low pay, odd hours of work, lack of career ladder, and poor working conditions. Some sales positions have the added factor of working on a commission basis. Professional, Technical and managerial alone accounted for 41% of the unfilled openings.

Table 9 provides a listing of occupations which had ten or more openings at the end of the quarter.

The following article appeared in the June 1982 Monthly Labor Review; published by the U.S. Department of Labor, Bureau of Labor Statistics.

Occupational winners and losers: who they were during 1972–80

Job gains occurred in most occupational groupings in which Americans were employed during the 1970's, but close to half of the overall employment increase took place in just 20 of the 235 occupations; and, several job groups lost thousands of workers

CAROL BOYD LEON

Most occupations gained workers in the 1970's. An employment increase of 15.6 million persons during 1972 to 1980 was dispersed among three-fourths of the 235 or so occupational categories in which most persons were employed. However, almost half of this job growth can be attributed to just 20 occupations—including secretaries, cashiers, registered nurses, and cooks. Among occupations declining in size were delivery workers, cleaners and servants in private households, and farmers. (See exhibit 1.)

This article looks at employment changes among the biggest occupational winners and losers of the 1970's. Two sets of criteria were used to choose the winners. An occupation must be one of the top 20 in terms of the number of workers added to the annual average employment level between 1972 and 1980—these increases ranged from more than 200,000 to nearly 1 million; alternately, the job group must have been one of the 20 which grew by 75 percent or more. The majority of occupations which met these tests were in either professional or clerical fields. Four job groups—computer specialists, computer operators, health technologists and technicians, and bank tellers—met both criteria. For all winners, job expansion by industry and by sex is examined.

Carol Boyd Leon is an economist in the Division of Employment and Unemployment Analysis, Bureau of Labor Statistics.

The 10 biggest losers of 1972–80—that is, occupations which declined by 60,000 workers or more—were generally other than white-collar jobs. (Percentage decrease in employment was not used as a criterion for job losers because only occupations with extremely small numbers of workers in them declined by a large proportion and their absolute loss of workers was small.) Various technological and sociological changes help account for many of the employment decreases, as will be pointed out later.

The Current Population Survey, which is the article's major data source, provides employment information for about 435 detailed occupations. However, this discussion is limited to those which posted a 1980 annual average employment level of 50,000 workers or more. To determine growth during the 1970's, annual averages for 1972 and 1980 are used; the year 1972 was chosen as the base year because earlier data are not available for all occupations on a comparable definitional basis.[1]

Where has the growth occurred?

About half of the 15.6 million increase in employment between 1972 and 1980 took place among two white-collar groups—professional and technical workers rose by 4.2 million and clerical workers registered a gain of 3.9 million. Next highest were managers and administrators with an increase of 2.9 million, service workers (excluding private household workers) with 2.4 million, and craft and kindred workers with 1.7 million.

Exhibit 1. Occupations ranked by the size of their absolute employment changes, 1972–80

Largest increases	Largest decreases
Secretaries	Delivery and route workers
Cashiers	Cleaners and servants
Registered nurses	Farm owners and tenant farmers
Cooks	Unpaid family farmworkers
Truckdrivers	Garage workers and gas station attendants
Accountants	Sewers and stitchers
Engineers	Child-care workers
Computer and peripheral machine operators	Textile operatives
Bookkeepers	Telephone operators
Computer specialists	Stenographers

Only small increases were posted among salesworkers, operatives, and nonfarm laborers, while there were declines of about 400,000 each among private household and farmworkers.

Growth rates follow a similar pattern. These measure the increase in employment relative to the initial (1972) employment level of the occupation. As shown below, white-collar groups—in particular, professionals, managers and administrators, and clerical workers—experienced the fastest growth between 1972 and 1980, followed by service workers (excluding private household):

Occupation	*Employment change, in percent*
Total	19.1
White-collar workers	30.0
Professional and technical workers	36.3
Managers and administrators, except farm	35.9
Salesworkers	15.3
Clerical and kindred workers	27.1
Blue-collar workers	7.8
Craft and kindred workers	15.9
Operatives, except transport	0.1
Transport equipment operatives	8.1
Nonfarm laborers	6.9
Service workers	18.2
Private household workers	−27.6
Other service workers	25.1
Farmworkers	−11.9

The only blue-collar occupational group which even came near the average growth rate was craft and kindred jobs. Generally speaking, as the service-producing sector expanded, so did office and service jobs, while slow growth in manufacturing and other goods-producing industries limited the increase in the employment of production workers.

Women accounted for about 65 percent of the employment rise over the period, an amount disproportionate to their 38-percent share of total employment in 1972. Many of the specific occupational winners—including the top five mentioned earlier—were "female-dominated." Women also made up a relatively large share of the job gains in all major occupational groups which experienced growth. More specifically, women accounted for at least half of the increases in employment in each of the major groups except craft and kindred jobs, where 1 of 5 additional workers was female. And even among craftworkers, women composed much of the employment advance compared with their portion of all craft jobs, as they accounted for fewer than 1 of 25 craftworkers in 1972. In two occupational groups, women made up 100 percent of the (limited) job gains, as the number of men employed as nonfarm laborers remained about the same and the number working as operatives except transport declined. Women made up a small part of the drop in farmworkers but virtually all of the decrease among private household workers.

Surge among white-collar groups

The proportion of workers employed in white-collar occupations reached 50 percent for the first time in 1976 and exceeded 52 percent by 1980. The continual climb in the proportion of these jobs can be attributed to three of its four major occupational groups—professional and technical workers, managers and administrators, and clerical workers.

Professional workers. The most growth took place among professional workers; seven specific occupations with increases of 200,000 or more fall under this heading. (See table 1.) The biggest employment gain was among registered nurses, whose job count was boosted by the growing demand for health services throughout the 1970's. (However, demand for services does not necessarily imply a simple one-to-one relationship to job growth in the health or any other industry. Other factors, such as relative wages received by persons in the occupation, the supply of workers with appropriate skills, changes in productivity and technology, and the degree to which other types of workers can satisfy the additional demand may all contribute to determining the magnitude of the employment change.) The health industry boom—caused by the greater availability of medical insurance, a larger and older population, and more public awareness of quality health care, among other factors—led to the job gains for nurses, as well as for dieticians, therapists, health technicians, administrators, and health aides.[2] The number of physicians increased too, but their rate of growth was slower than that of other health workers. The employment advance among registered nurses, which totaled 500,000 during 1972–80, occurred mainly among those in hospitals (350,000) and in medical offices (125,000). Although the number of male nurses more than doubled—they totaled 45,000 by 1980—95 percent of the job gains occurred among women.

The category of health technologists and technicians was among the biggest gainers—both in the size of the

job gain and the growth rate of the employed—although they posted an employment increase of only half that of registered nurses. (See tables 1 and 2.) As the demand for skilled persons to operate highly sophisticated diagnostic and therapeutic equipment grew, the employment level of health technologists and technicians advanced by approximately 255,000. More than half of this gain was among hospital workers, particularly those employed as clinical laboratory and radiologic technicians. As one might suspect, substantial increases also occurred among health technicians working in medical offices and other such facilities. A much smaller, but still noteworthy, gain took place in local government, which employed very few health technologists and technicians in the early 1970's compared with 13,000 by 1980. Women accounted for about two-thirds of the total increase among health technologists and technicians, in line with their representation in that occupation.

In another health-related occupation, therapists posted an 85-percent increase (almost 100,000), as the health industry as a whole grew rapidly. The exceptionally fast growth rate among therapists can be partly traced to stronger interest in, and funding for, rehabilitation programs. The representation of women among therapists advanced from about 60 to 75 percent from 1972 to 1980, as the vast majority of new therapists were women.

While still a relatively small health occupation, the number of dieticians grew swiftly, as their employment total rose from less than 35,000 to 60,000. As about 9 of 10 dieticians are women, virtually all of the job gains were registered among women. Like the other health workers, both therapists and dieticians found most job opportunities in hospitals, nursing homes, and other medical facilities.

The professional group which posted the next largest increase after nurses—about 335,000—was accountants. As business and individuals became more aware of the need for financial management, demand for accountants and accounting firms expanded; in fact, the rate of growth of accountants—a group which includes income tax advisers and others with accounting skills—was about twice that of total employment. About 30 percent of the job gains took place among those in professional services industries, especially the accounting, auditing, and bookkeeping services industry (although accountants working for hospitals and educational services made up part of the increase). An additional 20 percent of the advance occurred among manufacturing industries, with most of that rise being registered in firms which produce durable goods. The remaining 50 percent of the increase was spread among numerous industries, including public administration at all three levels of government, banking and finance, wholesale trade, and insurance and real estate. Although most accountants are men, the female share of the industry rose by 15 percentage points, to about 36 percent, as two-thirds of the additional accountants were women.

Engineers had a substantial employment rise, as their job count moved ahead by 330,000. Close to half of the job growth for engineers was in manufacturing. Next came professional services, and noticeable growth also occurred in business services, public utilities, and public administration (State and local). Industrial, and electrical and electronic engineers experienced the largest job gains, followed by mechanical engineers. These were also the fields in which employment of female engineers expanded the most. Although women made up only 15 percent of the total employment advance of engineers, their 50,000 increase was exceptional, considering there were fewer than 10,000 female engineers in 1972.

Related to the job gains among engineers was a rise of 265,000 among engineering and science technicians. These gains were spread throughout the economy but, like that of engineers, much of their employment increase was in manufacturing. Especially rapid growth in

Table 1. Occupations with the largest absolute increases in employment between 1972 and 1980

[Numbers in thousands]

Occupation	Employed		Employment increases		Rank by size of increase
	1972	1980	Number	Percent	
Total employed	81,702	97,270	15,568	19.1	—
Professional and technical workers					
Accountants	714	1,047	333	46.6	6
Computer specialists	273	584	311	113.9	10
Engineering and science technicians	829	1,095	267	32.2	12
Engineers	1,102	1,433	331	30.0	7
Health technologists and technicians	315	571	256	81.3	14
Lawyers	303	522	219	72.3	18
Registered nurses	801	1,302	501	62.5	3
Sales workers					
Real estate agents and brokers	349	582	233	66.8	17
Sales representatives, wholesale trade	636	915	219	31.5	18
Clerical workers					
Bank tellers	288	531	243	84.4	16
Bookkeepers	1,584	1,904	320	20.2	9
Cashiers	988	1,554	556	55.7	2
Computer and peripheral machine operators	196	522	326	166.3	8
Secretaries	2,949	3,876	927	31.4	1
Craftworkers					
Heavy equipment mechanics	714	963	249	34.9	15
Transportation equipment operatives					
Truck drivers	1,441	1,844	403	28.0	5
Nonfarm laborers					
Stockhandlers	723	941	218	30.2	20
Service workers					
Building interior cleaners excluding [illegible]	658	932	264	39.5	13
Cooks	866	1,331	465	53.7	4
Waiters	1,124	1,416	292	26.0	11

Note: Data are annual averages.

the production and use of electrical and electronic equipment and computer equipment accounted for a substantial number of new engineering jobs in those manufacturing industries and in the field of telecommunications. Although engineering and science technician jobs traditionally have been filled by men, women accounted for 45 percent of the 1972–80 growth, thereby doubling their representation in the occupational group from 9 to 18 percent.

Well known for its growth is the computer field, as advances in computer technology and usage have generated literally hundreds of thousands of jobs during both the 1960's and 1970's. Among just the professional job categories, computer specialists—mainly programmers and analysts—increased from about 12,000 in 1960[3] to 275,000 in 1972 and to nearly 585,000 by 1980. The number of persons employed as computer programmers came close to doubling during the 1972–80 period, while computer systems analysts were not far from tripling their 1972 level. Both of these occupations were among the 20 fastest-growing, and systems analysts were at the top in terms of percentage growth. Interestingly, it is difficult to pinpoint those industry groups in which most of the employment increase among computer specialists took place, because computers influenced nearly every major industry. As technological advances have made better computer equipment available at more reasonable prices, industries with firms which could not previously afford computers—such as some business services—and industries which grew only slightly during the 1970's—such as several durable goods manufacturing industries—incorporated computers into their operations.[4] Other large increases in the employment of computer specialists occurred in transportation and public utilities, especially telecommunications; finance, insurance, and real estate; nondurable goods manufacturing; public administration; and professional services, particularly educational services. (Employment advances in another computer-related occupation, computer operator, will be discussed later in this article.)

The female share of computer specialist jobs rose from 17 percent in 1972 to 26 percent in 1980, as 1 of 3 additional jobholders was a woman. Women continued to be more likely to be programmers than systems analysts—although female representation among both groups of workers increased substantially.

While lawyers make up one of the top 20 occupations only in terms of the size of their employment increase, both the absolute size of their gain—220,000—and their rate of growth—more than 70 percent—were notable. The demand for lawyers grew rapidly as businesses and individuals called upon them to untangle and interpret laws which are increasing in number and in complexity. About two-thirds of the rise in the employment of lawyers, which includes law clerks and many paralegal workers, took place among the group to which the majority belong—that is, those in private practice, either with law firms or alone. Proportionately speaking, a larger increase was registered among government lawyers, whose number more than doubled between 1972 and 1980 (from 40,000 to 90,000). Nearly a quarter of the job gains for lawyers were in public administration, with increases occurring at Federal, State, and, especially, local levels. Most of the remaining rise in employment—about one-tenth of the total increase of lawyers—was among those employed as house counsel by private firms, and a small increase was noted among law teachers.

Although the practice of law traditionally has been a "man's job"—women accounted for only 4 percent of all lawyers in 1972—1 of 4 lawyers added to the job count during 1972–80 was a woman. By 1980, the fe-

Table 2. Occupations with the largest percentage increase in employment between 1972 and 1980

[Numbers in thousands]

Occupation	Employed		Employment increases		Rank by size of increase
	1972	1980	Number	Percent	
Total employed	81,702	97,270	15,568	19.1	--
Professional and technical workers					
Authors	30	70	40	133.3	4
Biological scientists	36	64	28	77.8	19
Computer programmers	186	341	155	83.3	14
Computer systems analysts	74	201	127	171.6	1
Designers	110	193	83	75.5	20
Dietitians	33	59	26	78.8	17
Economists	68	138	70	102.9	7
Health technologists and technicians	315	571	256	81.3	15
Psychologists	50	106	56	112.0	5
Research workers	86	175	89	103.5	6
Therapists	115	213	98	65.2	10
Managers and administrators, except farm					
Health administrators	118	210	92	78.0	18
Clerical workers					
Bank tellers	288	531	243	84.4	12
Computer and peripheral equipment operators	196	522	326	166.3	2
Teachers' aids except school monitors	206	383	177	85.9	9
Craftworkers					
Data processing machine repairers	45	83	38	84.4	12
Operatives, except transport					
Insulation workers	30	59	29	96.7	8
Nonfarm laborers					
Warehouse laborers, not elsewhere classified	150	272	122	81.3	15
Service workers					
Health aides except nursing	157	290	133	84.7	11
Welfare service aides	34	87	53	155.9	3

Note: Data are annual averages

male proportion of employed lawyers was 13 percent, and this share is expected to continue rising.

Two of the three professional occupations which more than doubled in size fall under the social sciences heading—psychologists and economists. Psychologists are heavily concentrated in just a few industries; accordingly, their 55,000 increase was accounted for almost exclusively by job gains in professional services. Hospitals and medical offices provided opportunities for slightly more than half of the additional psychologists, while other services industries, including educational ones, absorbed most of the remainder. More than half of the increases took place among women, bringing their share of the employment total for psychologists to just over 50 percent.

The industrial distribution of economists is much more diverse, and so their 70,000 rise was spread among many types of businesses. About 30 percent of the advance took place in manufacturing firms, while banks and particularly business services—such as securities and investment companies, economic research firms, and management consulting firms—made up another 30 percent. About 2 of 5 economists added between 1972 and 1980 were women, making their proportion 25 percent.

The third group of professionals which more than doubled in size was composed of authors, including magazine free-lancers, speech writers, and television writers. About three-fourths of all authors in 1980 were self-employed and, accordingly, most of the increase of 40,000 was among self-employed workers. Men and women shared equally in the group's employment gain, and the proportion of women in this occupation was about 43 percent in both 1972 and 1980.

Other fast-growing professional occupations include biological scientists, designers, and research workers. The occupational group referred to as life and physical scientists as a whole grew at about twice the national rate for all workers, but biological scientists, who make up about one-fifth of the overall scientist group, increased at the even faster rate of close to 80 percent. Nevertheless, biological scientists increased by fewer than 30,000, with most of the gain occurring among those working in hospitals and medical offices, government (particularly at the State level), and education. Women made up half of the employment increase, as their representation in this occupation rose about 13 percentage points, to 38 percent.

The majority of designers in 1972 worked for manufacturing firms, particularly in the development of durable goods. However, an increase of 80,000 in the number of designers was most strongly felt in professional and business services. Both sexes shared in the 75-percent increase in the employment of designers. Men continued to predominate in this occupation, although women increased their proportion 10 percentage points, to 30 percent.

Employment of research workers who are not included in one of the other professional occupations rose substantially in every major industry group in which researchers can be found. A doubling in the number of research workers, to 175,000, was especially evident in professional service industries, such as educational institutions and law offices. Women accounted for almost half of the overall advance and, by 1980, made up about a third of all researchers.

Managers and adminstrators. In contrast to the 1960's, which had slow growth in managerial and administrative jobs, the 1970's saw rapid advances in the employment of these workers. Jobs for managers and administrators increased nearly as quickly as those for professional workers, the fastest-growing occupational group. However, the 2.9-million increase in the number of managers was substantially less than that posted for professionals or clerical workers. Moreover, no single managerial occupation qualified in the top 20 in terms of the size of the increase, although bank officials and financial managers—with an increase of about 215,000—was in 21st place. The duties performed by different persons working in managerial and administrative positions can be quite varied, and actually fewer than half of these workers are classified according to a specific occupation under the managerial heading. That is, most managers are grouped together under the indefinite title, "managers and administrators, not elsewhere classified." The number of such workers increased by more than a third, or 1.7 million.

One adminstrative group with a relatively fast rate of growth was health administrators; their number increased by close to 80 percent, as more than 90,000 such employees—about half men and half women—were added to the job count. In line with the faster growth of health industry workers in medical facilities other than hospitals, only one-third of the increase among health administrators was attributable to hospital hirings. In both 1972 and 1980, almost half of all health adminstrators were women.

Salesworkers. The growth among salesworkers was slower than the national average, as their number rose by only about 800,000, or 15 percent, during 1972–80. The recessions of 1974–75 and 1980 had a dampening effect on this group, but, as will be seen in the discussion of cashiers in the clerical occupations, much of the actual increase in retail trade employment is reflected at the cash register rather than on the sales floor. Also, there has been a substantial rise in the number of persons who are salesworkers in their secondary job. The number of these multiple jobholders grew by about

250,000, or 75 percent, from 1972 to 1980.

Real estate agents and brokers—with an increase of almost 235,000—were 1 of only 2 salesworker categories listed among the Nation's top gainers. The growth among real estate workers can be partly traced to the tremendous rise in the investment potential of homeownership during most of the 1970's and to a growing economy's need for additional residential and commercial buildings. Moreover, saleswork can provide an opportunity for part-time employment, as about one-fifth of all real estate agents work less than 35 hours per week.[5] By 1980, half were women, as they accounted for 7 of 10 additional agents; hence, this occupation is becoming more female-dominated.

A large absolute increase also was posted among sales representatives in wholesale trade. However, their rate of growth was only about 12 percentage points higher than the national average, and their 220,000 increase occurred primarily as a result of sizable advances within a few industries—most notably the wholesale machinery equipment and supplies industry in which the employment of salesworkers grew by 70,000. The female proportion of this occupation, while still low at only about 10 percent, doubled during the period.

Clerical workers. Clericals—the largest occupational group of the 12 major job groups—took second place after professionals in terms of the 1972–80 employment advance. Like professional workers, clerical occupations included 4 of the 10 top gainers; among these were the two largest (absolute) gainers, secretaries and cashiers. Clerical workers, in particular, were affected by developments in computers and office machines, as employment decreased among stenographers and keypunch operators, for example, while increasing among computer operators.

Secretaries, who make up one-fifth of all clerical workers, registered an increase of more than 925,000, making them the leading gainer among all occupational groups. As secretaries are needed in every industry, their employment grew in all sectors of the economy, especially among fast-growing industries such as business services, welfare and religious organizations, and local government, where their employment advanced by more than 50 percent. Legal secretaries experienced exceptional growth, increasing by about 70 percent.

Only 1 of 100 secretaries is a man, and virtually all of the field's increase was among women. The traditionally female composition of the secretarial work force—as well as that of cashiers—showed no indication of changes in the 1970's.

Cashiers, whose numbers grew by more than 550,000, are strongly concentrated in the retail trade industry. Although the employment of salesworkers in retail trade was virtually unchanged, the shift to self-service drugstores, clothing stores, discount operations, and catalog stores increased the demand for cashiers. The proliferation of fast-food eating places, which often require several cashiers, led to more than a doubling of the number of cashiers working in restaurants, as well as increases in part-time job opportunities. In 1976, 4 of 10 cashiers were working part time.[6] Women made up 87 percent of all cashiers in both the early 1970's and the beginning of the 1980's.

Computer and peripheral machine operators increased by 325,000 and bookkeepers by 320,000. However, whereas the latter grew at about the same rate as that for the Nation as a whole, computer operators were the second fastest-growing occupation, following only computer systems analysts. As technological improvements have decreased the need for keypunch operators, computer operators became the largest computer occupation, accounting for nearly 40 percent of all computer personnel.[7] As was the case for programmers and systems analysts, the demand for computer operators increased in every major industry.

The need for bookkeeping services has grown in line with the overall expansion of the economy, as all industries include firms which require the services of one bookkeeper or more. Although 1 of 3 works in wholesale or retail trade, their employment grew more rapidly in other industries. Professional services, most notably medical offices, experienced a particularly fast rate of growth for bookkeepers. More than 90 percent of all bookkeepers in 1980 were women; this proportion had been slightly lower in 1972.

Another clerical occupation with a sizable increase in jobholders was that of bank tellers—85 percent or 245,000. As the suburbs expanded and branch banking proliferated, the demand for tellers increased. Apparently, the appearance of automatic teller machines served to lengthen banking hours without eliminating job opportunities for bank tellers. As has been seen, the proportion of women in several traditionally female occupations has grown, as more women have joined the labor force; this occupation is no exception. The proportion of female bookkeepers rose by 5 percentage points, to nearly 93 percent, by the start of the 1980's.

Teachers' aides (excluding school monitors) were a very small group in 1960 but grew extremely fast during both the 1960's and 1970's; their number increased by about 85 percent, or 175,000, from 1972 to 1980. These workers—who serve as teachers' assistants and thereby assume some functions formerly performed by teachers, for example, grading papers and exams, supervising study halls, and helping out in kindergartens—are almost always women. The female proportion in this rapidly growing field was approximately 94 percent in 1980, up a few points from the early 1970's.

Service workers stride ahead

While service worker jobs can be found in all major industry groups, most—nearly 90 percent—are in the service-producing sector of the economy. And as employment in this sector bounded forward, so did the number of service workers (excluding private household). The fastest-growing nonwhite-collar occupational category, it included five job groups which registered relatively large employment increases, either numerically or percentage-wise.

The occupation which ranks fourth among those with the largest numerical increase in employment was that of cooks, whose job count rose by 465,000, or close to 55 percent. Related to this increase was an almost 300,000, or 25 percent, advance among waiters (including waitresses). As more women joined the labor force, turning single-earner families into multi-earner ones, the number of restaurants and fast-food places expanded and were frequented more often. The extremely large rise in the employment of cooks, including grill cooks, pizza makers, and fast-order cooks, can also be partially accounted for by the use of several cooks simultaneously in one eating establishment. In addition, part of the increase in their employment—about 55,000—was because of more job opportunities in hospitals and other medical facilities and in schools.

About one-third of all cooks work part time—about the same proportion as for all service workers—while closer to 45 percent of waiters are part-timers.[8] Most waiters and cooks are women, but men made up an increasing proportion of the latter during the 1970's. The representation of women among cooks dropped about 9 percentage points, to 53 percent, while the female proportion of waiters remained around 90 percent.

Another group of service workers which posted a large increase was building interior cleaners (excluding janitors and sextons). Rising about 265,000 from 1972 to 1980, they experienced a growth rate about twice the national average. The number of such workers rose substantially in many industries, such as professional and business services—including building cleaning services and in manufacturing and retail trade. The proportion of women in this occupation barely changed over the 9-year period, staying near 55 percent.

One of the fastest-growing occupations—which nevertheless totaled fewer than 90,000 in 1980—was that of welfare service aides. Their more than 150 percent increase made this the third largest gainer in the 1970's in terms of rate of growth. In 1960, prior to the widespread establishment of programs in social welfare, there were fewer than 1,000 welfare service aides. Community service workers, family service aides, and other welfare service aides work mainly in welfare and religious organizations but can also be found in medical facilities, such as nursing homes for the aged, and in schools. Current Population Survey data for 1980 show that 9 of 10 of these workers were women.

A larger service occupation, and one which also grew rapidly during the 1970's, was that of health aides (excluding nursing aides, orderlies, and attendants). Employment in this category—which includes medical assistants, pharmacists' helpers, and numerous others—was part of the overall growth of health-related occupations. Half of the nearly 135,000 rise in health aides was among those working in medical facilities other than hospitals, while a third was because of increased hospital employment. The number of women in this occupation doubled between 1972 and 1980, bringing their representation among health aides up 5 percentage points, to almost 85 percent.

Slow blue-collar growth

Blue-collar jobs, while still a major portion of the labor market with nearly a one-third share of total employment, accounted for only one-seventh of the overall increase in jobholders since 1972. The sluggish growth of blue-collar employment during the 1960's slowed even further in the 1970's as technological advances reduced the need for some types of blue-collar workers, while the job growth which took place in industries within the service-producing sector had little impact on the opportunities for workers in many blue-collar occupations. Even the rapid expansion of certain durable goods manufacturing industries—such as machinery and electric equipment—had only a slight overall effect on blue-collar employment.

Craft and kindred workers—those in skilled trades—grew at a slower pace than the overall economy but nevertheless made up more than three-fourths of the blue-collar advance, as laborers increased even more slowly and operatives employment was virtually unchanged. However, there were six specific blue-collar occupations which grew enough to qualify as big gainers, either in terms of absolute or percentage increases.

Craft and kindred workers. Much of the news concerning craftworkers in the 1970's focused on the entrance of women into the skilled trades; and, they did make important gains in this area. The number of female craftworkers doubled between 1972 and 1980, rising by about 365,000.[9] This resulted in women's representation among total craftworkers rising to only 6 percent, compared with 3.6 percent in 1972. So while 1 of 5 additional craftworkers over the period were women, and men's employment in the skilled trades rose less than 10 percent, by 1980 this occupation was still predominately male.

Heavy equipment mechanics were the only craft occupation which posted a large employment gain. Much

of it took place in manufacturing, although especially rapid growth was characteristic of mechanics in repair services, wholesale trade, and mining. The rate of growth for heavy equipment mechanics as a whole was 35 percent, about 15 points above the national average. Despite the increases already noted for women in this field, the occupation was 98 percent male in 1980.

Data processing machine repairers--also called computer service technicians—experienced essentially the same sharp growth trend as other workers in the computer field, with a percentage gain that placed it as the 10th fastest-growing occupation during the period. While still not a large occupational group, data processing machine repairers increased by nearly 85 percent, as the need for installation, service, and repair of computer equipment expanded as a result of more widespread computer use. These workers were employed mainly in durable goods manufacturing, wholesale trade, and business and repair services, and the growth rate for computer technicians was virtually the same in each of these industries. Like most other craft occupations, this one is more than 90 percent men, but women did hold more jobs as computer repairers in 1980 than they had in 1972.

Operatives except transport. Nontransport operatives made up a no-growth occupational group during the 1970's and only one specific occupation under this heading—insulation workers—experienced a fast rate of growth. Moreover, only a few other nontransport operative occupations grew at a rate even somewhat above the national average; these included mine operatives, welders and flame cutters, and laundry and dry cleaning operatives. The overall standstill among operatives, following only slow growth during the 1960's, was the result of several technological and societal changes. Among these were the shift of consumer demand away from the output of goods-producing industries, in which most operatives work, and towards service-producing industries; technological advances which made production more efficient and thereby reduced the need for as many operatives to produce the same amount of goods; changes in consumer demand for some types of work, such as dressmakers; and an increase in imports of certain goods that may have limited the jobs available, such as for textile workers. The proportion of female operatives (excluding transport) edged up to 40 percent in 1980. In more than a third of the specific operative occupations, the majority of workers were women.

The almost 100-percent growth among insulation workers, bringing their number in 1980 to slightly fewer than 60,000, was the result of the need for insulation in new homes and offices and the demand for more of it among energy-conscious owners of older homes. Almost all insulation workers are men, and the majority are employed by insulation contractors.

Transport equipment operatives. Although this group as a whole experienced slow growth—about 8 percent, or 260,000, since the early 1970's--the jobs under this heading tell a mixed story: three occupations grew at rates equal to or exceeding the national average, two were unchanged, and the remaining one decreased. The fastest growing of the three gainers was busdrivers, whose employment rose about 40 percent, or 100,000.

However, in terms of the actual size of the increase, truckdrivers grew most. Their advance of 400,000 placed them fifth in the ranking of all occupations by size of their employment growth. About 40 percent of all truckdrivers work for transportation companies (including their own), and 20 percent work in wholesale and retail trade. These industries accounted for three-fourths of the job gains, with employment growing more among truckdrivers in the trade industries. Despite a number of articles and even movies about female truckdrivers, 98 percent were men in 1980. However, there were five times as many women holding these jobs in 1980 as in 1972, and their employment level rose to more than 40,000.

Nonfarm laborers. The number of nonfarm laborers, like transport equipment operatives, creeped upward during 1972–80, following a decade of little or no growth. The substitution of machines for laborers, as well as the trend toward employing more highly skilled workers, depressed the hiring of laborers. Although 4 of the 9 specific laborer occupations posted employment declines, stockhandlers increased by more than 200,000 and warehouse laborers were among the fastest growing occupations.

The level of employment among stockhandlers rose by almost 220,000, with virtually all of the growth taking place in retail trade establishments (other than eating and drinking places), their biggest employer. Nearly a fourth of all stockhandlers in 1980 were women—up from 17 percent 8 years earlier—as an additional 100,000 women joined the field. More than 1 of 3 stockhandlers works part time,[10] which helps account for the large number of young persons—both male and female—holding these jobs.

Warehouse laborers (excluding those already counted as stockhandlers) rose by more than 120,000, as several major industry groups increased their hiring of these laborers substantially. Half of all warehouse laborers work in wholesale or retail trade establishments, and many others work in factories or in the transportation industry. Only about 15,000 of the employment increase can be attributed to women. Yet this represents a notable change from the early 1970's when only a few thousand women were employed in this occupation.

Yes, there were losers, too

Despite the magnitude of the employment increase during the 1970s, about 1 of 4 specific occupational groups did not post an employment advance. The declines spread among about 50 occupations totaled more than 2 million, ranging from 1,000 workers to more than 300,000. More than half of the 30 occupations which dropped by at least 10,000 workers during 1972–80 were blue-collar jobs, especially those of operatives. There were only five white-collar losers, four of which were in the clerical grouping. And, the same pattern occurred among the 10 biggest losers—that is, occupations whose level of employment dropped by 50,000 or more. Again, the blue-collar category posted the most losers. (See table 3.)

Occupational employment can fall in much the same way it can be boosted by changes in consumer tastes, technology, labor supply, and other factors. For example, a preference for longer hair resulted in less consumer demand for barbers, while the use of dictation machines reduced the business community's need for stenographers.

Delivery and route workers posted the biggest occupational loss—almost 310,000, or a third of the 1972 employment total. These workers, who are employed in wholesale or retail trade, in manufacturing, and to some extent by transportation and service firms, may deliver to homes or stores. The largest percentage declines were posted among those working for factories which produce nondurable goods and those employed in both wholesale and retail trade. A large drop—more than 200,000—occurred from 1973 to 1974, as many businesses were perhaps influenced by the gasoline shortage and resulting high gas prices to reduce delivery services. Employment in this occupation appears to have stabilized during the decade's second half. But despite the occupation's overall employment decline, the number of women who are delivery and route workers almost doubled during 1972–80, though the female proportion was still only 7 percent by 1980.

Table 3. Employment in occupations with declines of 60,000 or more between 1972 and 1980

[Numbers in thousands]

Occupation	Employed		Employment decreases		Rank by size of decrease
	1972	1980	Number	Percent	
Clerical workers					
Telephone operators	392	316	-76	-19.4	9
Stenographers	125	64	-61	-48.8	10
Craftworkers					
Garage workers and gas station attendants	502	337	-165	-32.9	5
Operatives except transport					
Sewers and stitchers	936	788	-148	-15.8	6
Textile operatives	424	323	-101	-23.8	8
Transport equipment operatives					
Delivery and route workers	892	584	-308	-34.5	1
Private household workers					
Child-care workers	543	431	-112	-20.6	7
Cleaners and servants	713	491	-222	-31.1	2
Farm workers					
Farm laborers and farm foremen	1,658	1,447	-211	-12.0	3
Farm laborers, unpaid family workers	435	264	-171	-37.6	4

Note: Data are annual averages.

Cleaners and servants totaled less than a half million in 1980, following a nearly one-third decline of 220,000 since 1972. This decrease was partially offset by a rise in employment within commercial cleaning businesses. Also, the supply of the private household workers—a group generally paid low wages—declined, perhaps more than the demand for them, as employment opportunities in other fields increased and as public assistance became more available.[11] Just over half of the cleaners and servants in 1980 were black and other minority women; however, nearly 90 percent of the employment decline among workers in this occupation took place among minority women, as older workers retired and younger, better-educated blacks entered other types of occupations. The representation of total women in this field—about 97 percent—was steady over the decade.

Child-care workers in private households, including both young part-time babysitters and full-time experienced adults, also posted a sizable employment decline. Their number dropped by about 110,000, or 20 percent of the 1972 total. During the same period, employment of child-care workers outside the child's own home—such as in day care centers or in the homes of women who care for several children—increased by 75,000, as many working parents turned to these alternatives. Moreover, much of the decrease in private household child-care workers occurred in the early 1970's, with employment in this occupation remaining relatively flat during the decade's latter half. The 1976 change in the income tax law permitting a tax credit to families with certain child-care expenses—in contrast to their early classification as an itemized deduction only - may have helped stem the downward trend of this occupation. About 9 of 10 child-care workers are white women, and most of the 1972–80 decline was among them.

Agricultural employment has dropped dramatically since the early 1900's, when the agricultural count totaled more than 12 million—or a third of all workers

to the 1980 employment level of 3.3 million, representing just over 3 percent of all employees. Accordingly, farmworkers, who account for 4 of 5 agricultural employees, posted sizable decreases, too. Between 1972 and 1980, the ranks of farmworkers were diminished by 365,000 as farms became more mechanized and the trend towards fewer farms continued. However, it should be noted that the rate of decline among farmworkers slowed considerably during the 1970's and practically all of the 1972–80 decline took place among farmers—that is, farmowners and tenant farmers—and unpaid family workers who are farm laborers; these two groups made up two-thirds of all farmworkers in 1972. Hence, over the same period, the number of wage- or salary-earning farm laborers changed little.

Both owners and renters of small farms and unpaid laborers posted their largest losses before 1978, as their employment level held fairly steady for the balance of the decade. Interestingly, as the number of farmowners and renters declined—by about 210,000—the number of women in this occupation rose by 50,000. Still, about 90 percent of all farmers in 1980 were men.

Approximately 2 of 3 unpaid farm laborers are women, generally the farmer's wife, but his daughter or other female relative also would be included. These unpaid family members must work 15 hours or more per week on the family farm to be counted as employed farm laborers. The 170,000 drop in the number of unpaid workers is partly a response to the reduced number of family farms; the number of farms fell by half a million during the 1970's.[12] Moreover, some of the decrease can be attributed to women moving into paid jobs in the nonagricultural sector, either replacing or supplementing their hours spent on farmwork. If these unpaid farmworkers spend more hours at their off-farm job—which often happens during slack farming seasons—they are classified accordingly. Hence, the decline among farm laborers is caused by more moonlighting among some farmers' relatives and a complete cessation of farmwork among others.

A one-third decline in the number of garage workers and gas station attendants took place between 1972 and 1980. A large factor in this drop was undoubtedly the gasoline shortage of 1973, with the resulting cutbacks in the number and hours of gas stations; but probably of even greater importance was the introduction of self-service pumps. In fact, half of the overall employment drop occurred between 1978 and 1980. Garage workers and gas station attendants, many of whom are relatively young, include a substantial proportion of part-timers—about 30 percent in 1976.[13]

Two of the occupations which posted large job losses—textile operatives and sewers and stitchers—were in many ways related, as some textile firms produce the materials which are then used by sewers. A 150,000 decline among sewers and stitchers and a 100,000 drop among textile operatives—including, for example, spinners, knitters, and weavers—occurred as more efficient machinery, the use of synthetic fibers, and competition from imports have combined to reduce the demand for these workers. As about 95 percent of all sewers and stitchers are women, virtually all of the decrease took place among women. Although women represent about 3 of 5 textile operatives, about half of the reduction among these operatives was accounted for by men.

The employment of telephone operators declined by about 75,000 during 1972–80, as several factors combined to reverse their earlier upward trend. Most of the drop—about 60,000—occurred among telephone company operators, whose job total was affected by changing consumer habits, such as less use of directory assistance caused by the imposition of charges in some areas, and more direct dialing of long-distance calls. In addition, improved switching equipment reduced the need for so many operators. Private branch exchange switchboard operators, who work mainly for large companies, also experienced some decline in demand as firms adopted the operatorless Central Exchange (CENTREX) telephoning system. All of the job loss took place among women, as the number of men employed as telephone operators rose during the 1970's.

In terms of absolute size of the employment decline, those construction laborers who are employed as carpenters' helpers would qualify as the Nation's 10th largest occupational loser. Because much of their 65,000 drop undoubtedly is cyclical, rather than secular, and because the number of carpenters actually rose during the decade, a better choice of occupations for the list of those with big losses probably is stenographers.

The employment of stenographers fell rapidly during the 1970's, as their job count in 1980—at less than 65,000—was only half of its 1972 level. As mentioned earlier, the overall demand for stenographers was greatly diminished, both in the 1960's and 1970's, as a result of the increased use of dictation machines. Virtually every industry which employed stenographers in the early 1970's had drastically reduced the number of these jobs by 1980. For instance, the estimated number of stenographers working in telecommunications fell from 21,000 to 1,000; in manufacturing, their employment dropped from almost 20,000 to less than 5,000. The relative declines among public administration workers were not as large, as skilled shorthand reporters found job opportunities within the court systems. It is likely that many persons who had been classified as stenographers in the early 1970's were working as secretaries, dictaphone typists, or in other clerical fields by 1980. Employment of both male and female stenographers was reduced by about half, resulting in virtually no change in the 90 percent female share of theses jobs.

Some of the specific occupational changes of the 1970's were similar to those of the previous decade — for example, strong growth was maintained among computer specialists and cashiers, and declines continued among unpaid farm laborers. However, the employment changes for some occupations in the 1970's were in contrast to changes in the 1960's. For instance, the big winners of the 1960's included billing clerks and library attendants, which were both slower than average gainers during the 1970's; but a substantial loss was posted by machinists in the 1960's, whose number had shown strong growth during the more recent decade. How much the occupational employment trends of the 1970's continue through the 1980's remains to be seen.□

NOTE: The data are based on 1970 Decennial Census population counts, adjusted for the aging of the population, deaths, and net migration. The Bureau of Labor Statistics has subsequently converted current CPS estimates to reflect the 1980 census, which enumerated 4.7 million more people than had been estimated in updating the 1970 figure. Because this difference was so much larger than previous censuses, historical CPS data series also are being revised, including broad occupational employment categories. Unlike data for the major labor force series, the full range of revised data for detailed occupational categories was not available at this writing; indeed, revisions of some of the detailed series may not be undertaken. However, even if revised data were available, their validity might be questionable at the level of detail in this analysis. (The size and scope of the revisions of major labor force data as a result of the 1980 census will be discussed in an article in the July *Review.*)

FOOTNOTES

[1] The Current Population Survey is a monthly survey of about 60,000 households around the Nation conducted by the Bureau of the Census for the Bureau of Labor Statistics. For all persons ages 16 and over, the following questions are asked in order to classify workers by occupation: (1) "What kind of work was . . . doing? and (2) What were . . .'s most important activities or duties?" For a listing of the job titles which made up each detailed occupation during 1972–80 see *Classified Index of Industries and Occupations*, 1970 Census of Population, U.S. Department of Commerce, September 1971. Beginning in 1983, the Current Population Survey will use the Standard Occupational Classification on which the 1980 Census of Population was based. For information detailing occupational changes between 1960 and 1970 based on the censuses for those years, see Constance Bogh DiCesare, "Changes in the occupational structure of U.S. jobs," *Monthly Labor Review*, March 1975, pp. 24–34.

Data on occupational employment are also developed by the Bureau based on the Occupational Employment Statistics (OES) surveys. The OES surveys cover wage and salary workers on the payrolls of nonagricultural establishments, except private households. Data are collected from a sample of employers who report occupational employment totals in their establishments based on specific occupational definitions on the survey questionnaire. The OES surveys are conducted on a 3-year cycle, with about one-third of the economy covered each year. To develop occupational employment estimates for a specific year, occupational staffing patterns of industries are developed from the OES survey data. These patterns are then applied to annual averages of total employment by industry from the Bureau's Current Employment Statistics Survey. The resulting data are summed across industries and added to Current Population Survey (CPS) employment data for workers not covered by the OES surveys — agriculture, private household, self-employed, and unpaid family workers — to develop estimates of total employment by occupation.

This procedure was used for the first time in 1980 to develop occupational employment estimates for 1978. These estimates were also used as the base of occupational projections to 1990 (see Max Carey, "Occupational employment growth through 1990," *Monthly Labor Review*, August 1981, pp. 43–55).

For many comparable occupations, significant differences exist between occupational employment estimates in the CPS and those based on OES survey data. These differences not only reflect sampling and nonsampling errors of each survey, but also conceptual differences. For example, the CPS is a count of individuals and therefore workers with two jobs or more are counted once in their primary occupation. On the other hand, the OES surveys count jobs, and workers on the payrolls of two employers or more (establishments) are counted in the occupation held in each establishment. More complete details on differences in occupational employment data derived from the CPS and the OES surveys are available in an unpublished paper *Comparison of Occupational Employment in the 1978 Census-based and OES Survey-based Matrices*, OES Technical Paper-1. Available from the BLS Division of Occupational Outlook.

[2] For more information on the growth of the health industry, see Edward S. Sekscenski, "The health services industry: a decade of expansion," *Monthly Labor Review*, May 1981, pp. 9–16.

[3] The data source for the number of computer specialists in 1960 (12,142) is the 1960 Census of Population. See DiCesare, "Changes in the occupational structure."

[4] For more information on the growth and outlook of the computer industry and its related occupations, see H. Phillip Howard and Debra Rothstein, "Up, Up, Up, and Away: Trends in Computer Occupations," *Occupational Outlook Quarterly*, Summer 1981, pp. 3–11. Also see "Small business computers: the need for them is increasing," *Office*, July 1979, pp. 77–79.

[5] Data presented in this report on the part-time status of workers by detailed occupational group refer to 1976 and can be found in "Who's Working Part Time These Days?" *Occupational Outlook Quarterly*, Summer 1979, pp. 14–17.

[6] Ibid.

[7] For more on the changing distribution of computer jobs, see Howard and Rothstein, "Up, Up, Up, and Away."

[8] "Who's Working Part Time?"

[9] Some of the specific craft occupations in which the number of women at least tripled were: carpenters, among whom the number of female jobholders increased from 5,000 to 18,000; other construction craftworkers, with an increase from about 15,000 to almost 50,000; machinists, from 2,000 to 18,000; heavy equipment mechanics, from 5,000 to 15,000; and telephone installers and repairers, from 6,000 to 27,000.

[10] "Who's Working Part Time?"

[11] See Allyson Sherman Grossman, "Women in domestic work: yesterday and today," *Monthly Labor Review*, August 1980, pp. 17–22.

[12] For more information on farmworkers, see Patricia A. Daly, "Agricultural employment: has the decline ended?" *Monthly Labor Review*, November 1981, pp. 11–17.

[13] "Who's Working Part Time?"

TABLE 1

CHARACTERISTICS OF ACTIVE JOB SERVICE APPLICANTS

END OF QUARTER

CHARACTERISTICS OF APPLICANTS	JUNE 30, 1982		JUNE 30, 1981	
	TOTAL	PERCENT	TOTAL	PERCENT
TOTAL	29,000	100.0	28,521	100.0
SEX				
Male	17,224	59.4	16,563	58.1
Female	11,776	40.6	11,958	41.9
AGE				
15 and Under	242	.8	321	1.1
16-19	3,423	11.8	4,420	15.5
20-21	2,809	9.7	3,007	10.5
22-39	16,562	57.1	15,550	54.5
40-54	4,554	15.7	3,847	13.5
55 and Over	1,410	4.9	1,376	4.8
EDUCATION				
0 - 7	452	1.6	527	1.8
8 - 11	6,301	21.7	7,229	25.3
12	13,444	46.4	12,568	44.1
Over 12	8,803	30.4	8,197	28.7

SOURCE: ESARS TABLE 06

TABLE 1 (CONT.)

CHARACTERISTICS OF ACTIVE JOB SERVICE APPLICANTS

END OF QUARTER

CHARACTERISTICS OF APPLICANTS	JUNE 30, 1982		JUNE 30, 1981	
	TOTAL	PERCENT	TOTAL	PERCENT
VETERAN	3,738	12.9	5,821	20.4
DISABLED	148	.5	290	1.0
VIETNAM ERA	1,501	5.2	1,956	6.9
UNDER 35	967	3.3	1,409	4.9
SPECIAL VETERAN	536	1.8	683	2.4
RACE/ETHNIC				
WHITE	26,305	90.7	25,616	89.8
BLACK	114	.4	149	.5
HISPANIC	336	1.2	341	1.2
AMERICAN INDIAN & ALASKAN NATIVE	2,048	7.1	2,189	7.7
ASIAN & PACIFIC ISLANDER	149	.5	172	.6
INFORMATION NOT AVAILABLE	48	.2	54	.2
OTHER				
WELFARE	1,635	5.6	2,724	9.6
CLAIMANT	11,699	40.3	7,207	25.3
HANDICAPPED	1,727	6.0	2,014	7.1
ECONOMICALLY DISADVANTAGED	4,879	16.8	6,289	22.0

TABLE 2

TOTAL AVAILABLE JOB SERVICE APPLICANTS *

END OF QUARTER -- JUNE 30, 1982

OCCUPATION	TOTAL	PERCENT OF TOTAL	FULLY QUALIFIED APPLICANTS	PERCENT OF TOTAL	ENTRY LEVEL APPLICANTS	PERCENT CHANGE OF TOTAL
TOTAL	27,808	100.0	27,110	100.0	698	100.0
Prof, Tech, Mgr.	3,373	12.1	3,300	12.2	73	10.5
Clerical,Sales	6,143	22.1	5,928	21.9	215	30.8
Service	6,005	21.6	5,805	21.4	200	28.7
Agricultural	1,215	4.4	1,194	4.4	21	3.0
Processing	310	1.1	301	1.1	9	1.3
Machine Trades	1,429	5.1	1,392	5.1	37	5.3
Bench Work	245	.9	241	.9	4	.6
Structural	4,490	16.1	4,430	16.3	60	8.6
Miscellaneous	4,534	16.3	4,455	16.4	79	11.3
Invalid Codes	64	.2	64	.2	---	---

* Does not include partial applications
SOURCE: ESARS TABLE 96

TABLE 3

CHARACTERISTICS OF JOB SERVICE APPLICANTS BY OCCUPATIONAL CATEGORY*

MONTANA

END OF QUARTER -- JUNE 30, 1982

CHARACTERISTICS OF APPLICANTS	ACTIVE FILE TOTAL	PROFESSIONAL TECHNICAL & MANAGER	CLERICAL & SALES	SERVICE	AGRICULTURAL FISHERIES & FORESTRY	PROCESSING	MACHINE TRADES	BENCH WORK	STRUCTURAL	MISC.	MISCODED
TOTAL	27,808	3,373	6,143	6,005	1,215	310	1,429	245	4,490	4,534	64
SEX											
Male	16,468	1,860	1,310	1,943	1,040	239	1,333	142	4,362	4,198	41
Female	11,340	1,513	4,833	4,062	175	71	96	103	128	336	23
AGE											
Under 22	5,990	98	1,432	2,039	310	40	192	32	747	1,086	14
22 - 44	17,948	2,717	3,945	3,102	717	215	1,015	181	3,118	2,896	42
45 and Older	3,870	558	766	864	188	55	222	32	625	552	8
OTHER											
Minority	2,527	251	427	737	145	39	76	29	493	323	7
Veteran	3,699	544	360	354	187	42	352	34	941	879	6
Economically Disadvantaged	4,656	250	914	1,652	239	32	210	38	623	683	15

* Excludes applicants whose status is unknown.

SOURCE: ESARS TABLE 96.

TABLE 4

ACTIVE JOB SERVICE APPLICANTS
OCCUPATIONS WITH 10 OR MORE APPLICANTS
END OF QUARTER
JUNE 30, 1982

DOT CODE	OCCUPATIONAL TITLE	TOTAL ACTIVE APPLICANTS END OF QUARTER
001-261-010	Drafter, Architectural	15
003-161-014	Electronics Technician	25
005-061-014	Civil Engineer	20
007-061-014	Mechanical Engineer	11
012-167-066	Systems Analyst	10
022-061-010	Chemist	12
040-061-034	Forester	19
041-061-030	Biologist	17
045-107-010	Counselor	84
075-374-010	Nurse, General Duty	29
079-371-010	Dental Assistant	34
079-374-014	Nurse, Licensed Practical	48
090-227-010	Faculty Member, College	19
091-227-010	Teacher, Secondary	181
092-227-010	Teacher, Elementary	188
110-107-010	Lawyer	16
131-267-026	Writer, Technical	17
160-167-010	Accountant	90
162-157-038	Purchasing Agent	22
163-167-018	Manager Sales	26
165-067-010	Public Relations Representative	21
169-167-010	Administrative Assistant	176
169-167-034	Manager, Office	84
185-167-046	Manager, Retail Store	87
187-167-106	Manager, Food Service	55
189-167-034	Security Officer	17
193-162-018	Air Traffic Control, Tower	12
195-107-010	Caseworker	28
195-107-022	Group Social Worker	17
201-362-010	Legal Secretary	82
201-362-014	Medical Secretary	12
201-362-030	Secretary	348

SOURCE: ESARS TABLE 96.

TABLE 4 (Cont.)

ACTIVE JOB SERVICE APPLICANTS
OCCUPATIONS WITH 10 OR MORE APPLICANTS
END OF QUARTER
JUNE 30, 1982

DOT CODE	OCCUPATIONAL TITLE	TOTAL ACTIVE APPLICANTS END OF QUARTER
203-362-010	Clerk Typist	138
203-582-030	Keypunch Operator	62
203-582-066	Typist	11
206-362-010	File Clerk	26
209-562-010	Clerk, General	668
209-587-026	Mail Clerk	10
210-382-010	Audit Clerk	29
210-382-014	Bookkeeper, Full Charge	351
210-382-018	Bookkeeper II	83
211-362-010	Cashier	58
211-362-018	Teller	55
211-462-010	Cashier II	323
213-362-010	Computer Operator	61
216-482-010	Accounting Clerk	45
219-362-010	Administrative Clerk	587
222-387-058	Stock Clerk	112
235-462-010	Switchboard Operator	22
235-662-022	Telephone Operator	27
237-367-010	Appointment Clerk	10
237-367-038	Receptionist	236
238-362-010	Hotel Clerk	58
249-367-074	Teacher Aide II	95
250-257-010	Sales Agent, Insurance	11
261-357-066	Salesperson, Women's Apparel	10
273-353-010	Sales, Auto	20
279-357-050	Salesperson, General Hardware	11
279-357-054	Sales, General Merchandise	256
279-357-062	Sales, Parts	31
290-477-014	Sales Clerk	692
290-477-018	Sales Clerk, Food	19
292-353-010	Driver, Sales Route	41
299-357-014	Telephone Soliciter	10

TABLE 4 (Cont.)

ACTIVE JOB SERVICE APPLICANTS
OCCUPATIONS WITH 10 OR MORE APPLICANTS
END OF QUARTER - JUNE 30, 1982

DOT CODE	OCCUPATIONAL TITLE	TOTAL ACTIVE APPLICANTS END OF QUARTER
301-474-010	Houseworker, General	126
309-667-010	Companion	14
311-477-014	Counter Attendant	571
311-477-030	Waiter/Waitress Informal	323
311-477-038	Waiter/Waitress, Take out	10
311-677-010	Cafeteria Attendant	13
312-474-010	Bartender	358
313-131-014	Chef	22
313-361-014	Cook (Hotel and Restaurant)	446
313-361-022	Cook, Short Order	100
315-361-010	Cook	79
316-684-018	Meat Cutter	84
317-687-010	Cook Helper	25
318-687-010	Kitchen Helper	543
323-687-010	Cleaner, Hospital	10
323-687-014	Cleaner, Housekeeper	313
332-271-010	Cosmetologist	33
355-377-014	Psychiatric Aide	16
355-674-014	Nurse's Aide	348
355-674-018	Orderly	12
359-677-010	Attendant, Childrens Inst.	15
359-677-018	Nursery School Attendant	40
361-687-018	Laundry Laborer	23
372-667-034	Security Guard	39
372-667-038	Merchant Patroller	36
375-263-014	Police Officer	22
382-664-010	Janitor	387
408-161-010	Landscape Gardener	24
452-364-010	Forester Aide	199
509-686-010	Laborer, General	25
526-381-010	Baker	25
529-687-186	Sorter, Ag Produce	17
534-662-010	Back Tender, Paper Machine	10

SOURCE: ESARS TABLE 96

TABLE 4 (Cont.)

ACTIVE JOB SERVICE APPLICANTS
OCCUPATIONS WITH 10 OR MORE APPLICANTS
END OF QUARTER-June 30, 1982

DOT CODE	OCCUPATIONAL TITLE	TOTAL ACTIVE APPLICANTS END OF QUARTER
600-280-022	Machinist	112
620-261-010	Auto Mechanic	257
620-261-022	Construction Equipment Mechanic	39
621-281-014	Airframe and Power Plant Mechanic	20
625-281-010	Diesel Engine Mechanic	131
625-281-034	Small Engine Mechanic	18
637-261-014	Heating and Air Cond. Mechanic	10
638-281-014	Maintenance Mechanic	59
638-281-018	Millwright	25
660-280-010	Cabinetmaker	15
787-682-046	Sewing Machine Operator	19
804-281-010	Sheet Metal Worker	40
805-261-014	Boilermaker	36
807-381-010	Auto Body Repairer	70
819-384-010	Welder, Combination	240
824-261-010	Electrician	153
828-281-010	Electronic Mechanic	38
840-381-010	Painter	86
844-364-010	Cement Mason	40
859-683-010	Operating Engineer	435
860-381-022	Carpenter	486
861-381-018	Bricklayer	23
862-381-018	Pipefitter	14
862-381-030	Plumber	32
862-684-014	Laborer, Construction	12
864-381-010	Carpet Layer	11
866-381-010	Roofer	37
869-664-014	Construction Worker	793
869-684-010	Assembler, Mfd. Bldngs.	10
899-381-010	Maintenance Repairer	125
904-383-010	Tractor-Trailer Truck Driver	225
905-663-014	Truck Driver, Heavy	602

SOURCE: ESARS TABLE 96

TABLE 4 (Cont.)
ACTIVE JOB SERVICE APPLICANTS
OCCUPATIONS WITH 10 OR MORE APPLICANTS
END OF QUARTER - JUNE 30, 1982

DOT CODE	OCCUPATIONAL TITLE	TOTAL ACTIVE APPLICANTS END OF QUARTER
906-683-022	Truck Driver, Light	155
913-463-010	Bus Driver	113
915-467-010	Auto Service Station Attendant	143
919-687-014	Cleaner, Vehicle	18
920-587-018	Packager, Hand	34
920-687-014	Bagger	56
929-683-010	Logging Tractor Operator	55
929-687-030	Material Handler	1212
930-684-026	Rotary Driller Helper	166
950-382-026	Stationary Engineer	27

TABLE 5
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Airconditioning Mechanic	1	3	2	2	0
Aircraft Mechanic	3	1	3	1	0
Amusement Machine Mechanic	6	1	2	1	4
Architect	0	0	0	0	0
Assembly Line Meat Cutter	2	0	0	0	2
Auto Body Fendermen	37	5	12	3	27
Automotive Electrician	0	1	0	1	0
Automotive Mechanic	81	12	22	12	59
Automotive Mechanic H.D.	15	4	7	4	8
Automotive Radiator Repairer	0	1	1	0	0
Baker	30	15	7	10	28
Barber	1	0	1	0	0
Boilermaker	28	37	11	8	46
Bookbinder	5	0	3	1	1
Bricklayer	33	0	0	6	27
Business Machine Mechanic	7	6	6	1	6
Butcher	0	1	0	1	0
Cabinet Maker	11	6	5	2	10
Cable Splicing Technician	1	5	0	1	5
Camera Repairman	0	0	0	0	0
Canvas Worker	0	0	0	0	0
Carpenter	210	44	26	35	143
Carpet Layer	1	0	0	1	0
Cash Register Technician	0	0	0	0	0
Cement Finisher	23	8	1	1	29
Centerless Grinder Operator	2	0	0	0	2
Combination Serviceman	2	0	0	0	2
Combination Technician	17	6	2	8	13
Commercial & Graphic Design	0	0	0	0	0
Contact Lens Lab Technician	0	0	0	0	0
Cook	1	1	0	0	2
Dental Instrument Maker	3	0	1	1	1

SOURCE: Apprenticeship Bureau, Department of Labor & Industry

TABLE 5 (Cont.)
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Dental Technician	0	0	0	0	0
Diesel Mechanic	29	8	12	9	16
Draftsman	5	0	1	3	1
Dry Cleaner	1	0	1	0	0
Drywall Finisher	3	0	1	0	2
Electric Appliance Mechanic	10	5	4	1	9
Electric Motor Repairer	1	0	1	0	0
Electric Sound & Coin Mach.	1	1	0	1	1
Electrician	116	32	11	26	111
Electrician Lineman	92	19	3	14	94
Electrician Serviceman	1	0	0	0	1
Electrician Signal Systems	1	0	0	1	0
Electronic Technician	5	1	3	0	3
Electronics Equipment Mech.	1	0	1	0	0
Electroplater	2	0	1	0	1
Estimator	0	0	0	0	0
Farm Equipment Mechanic	18	6	6	2	16
Fiberglass Repairer	1	1	0	0	2
Field Engineer Computer Spec.	1	0	0	1	0
Fire Fighter	3	0	0	0	3
Floor Coverer	8	0	4	2	2
Fork Lift Mechanic	0	0	0	0	0
Frame Attendant	0	0	0	0	0
Gas Engine Repairman	2	0	2	0	0
Gas Fitter	3	0	0	1	2
Gas Serviceman (Main. & Repair)	0	0	0	0	0
Gem Cutter	1	0	0	0	1
Gemologist	0	0	0	0	0
General Merchandise Retail Sales Clerk	0	0	0	0	0

TABLE 5 (Cont.)
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Geophysical Prospector	1	0	0	0	1
Glazier	9	3	2	2	8
Granite Carver & Polisher	0	0	0	0	0
Gun Smith	1	0	0	0	1
Heavy Equipment Mechanic	21	3	2	0	22
H.D. Repair and Welder	5	0	0	0	5
Horseshoer	1	0	0	0	1
Hydraulic Equipment Operator	0	0	0	0	0
Hydro Substation Operator	3	0	0	0	3
Installation Technician	66	39	6	8	91
Instrument Repairman	4	1	0	1	4
Insulation Installer	0	0	0	0	0
Ironworker	67	12	12	10	57
Jeweler	2	1	2	0	1
Lather	0	0	0	0	0
Lead Burner	0	0	0	0	0
Lens Grinder	2	0	0	2	0
Lineman	14	14	0	15	13
Linotype Machinist	0	0	0	0	0
Lithographer	1	0	1	0	0
Locksmith	0	2	0	1	1
Machinist	32	12	4	6	34
Mailer	2	0	0	0	2
Maintenance Engineer	0	0	0	0	0
Maintenance Mechanic	17	5	2	3	17
Meat Cutter	53	17	9	13	48
Medical Technologist	1	0	1	0	1
Meter & Relay Mechanic	1	0	0	0	1
Millwright	4	0	0	1	3
Mobile Home Repairman	0	0	0	0	0

TABLE 5 (Cont.)
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Molder	2	0	0	0	2
Monument Maker	0	0	0	0	0
Motor Boat Mechanic	4	0	1	0	3
Motor Cycle Mechanic	6	3	3	1	5
Motor Repair and Winder	1	0	0	1	0
Operator	22	12	3	8	23
Ophthalmic Finish & Assembly	2	0	0	0	2
Optician (Dispensing)	5	1	4	0	2
Orthotist-Prothestist	1	0	0	0	1
Outside Plant Technician	41	4	1	7	37
Painter	22	8	4	4	22
Para Medic	2	0	0	0	2
Partsman	33	4	3	10	24
Photocomposition Typographer	0	0	0	0	0
Photographer	3	1	1	0	3
Photo Engraver	1	0	0	0	1
Pipefitter	52	22	4	14	56
Pinsetter Mechanic	5	2	2	2	3
Plant Mechanic	3	0	1	0	2
Plasterer	0	0	0	0	0
Plater (Electroplater)	1	0	0	0	1
Plumber	97	5	8	35	59
Power Saw Mechanic	0	1	1	0	0
Pressman	14	3	7	1	12
Printer	1	0	0	1	0
Private Branch Exchange Inst.	1	0	1	0	0
Protective System Install.	0	1	1	0	0
Pump Repairer	1	0	1	0	0
Radio Comm. Equipment Install.	2	0	1	1	0

TABLE 5 (Cont.)
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Radio Communications Tech.	2	0	2	0	0
Radio & T.V. Repairer	9	2	5	0	6
Roofer	12	9	7	2	12
Saddlemaker	0	0	0	0	0
Saw Smith	1	2	1	0	2
Screw Machine Operator	0	0	0	0	1
Serviceman I	0	0	0	0	0
Serviceman III	1	0	0	1	0
Serviceman IV	0	0	0	0	0
Sewing Machine Mechanic	2	0	0	0	2
Sheet Metal Worker	47	10	8	14	35
Shoe Repairer	2	2	1	1	2
Shop Attendant	0	0	0	0	0
Sign Electrician	2	2	2	1	1
Sign Painter	2	1	0	0	3
Small Engine Repairer	0	1	0	0	1
Sprinkler Fitter	12	0	0	1	11
Stationary Engineer	1	2	0	1	2
Steamfitter	2	3	0	1	4
Stereotyper	0	0	0	0	0
Stonemason	0	0	0	0	0
Surveyor	3	0	2	1	0
Switching Equipment Tech.	5	0	0	2	3
Thermal Generation Instrument Control Technician	6	2	1	7	0
Thermal Generation Mechanic	18	3	0	7	14
Thermal Generation Operator	37	25	7	12	43
Tile Setter	1	0	1	0	0
Toll Testing Technician	28	2	2	12	16

TABLE 5 (Cont.)
APPRENTICESHIP ACTIVITIES BY TRADE
END OF QUARTER -- JUNE 30, 1982

TRADE	ACTIVE BEGINNING OF QUARTER	NEW	CANCELLED	COMPLETED	TOTAL ACTIVE END OF QUARTER
Tool & Die Maker	0	0	0	0	0
Transmission Mechanic	0	0	0	0	0
Upholsterer	8	0	4	0	4
Utility Electrician	2	0	0	1	1
Utility Meterman	1	1	1	0	1
Utility Relayman	3	0	0	2	1
Welder	5	1	0	0	6
Well Driller	4	0	2	2	0

TABLE 6

EMPLOYMENT BY INDUSTRY
(In Thousands)

INDUSTRY	JUNE 1982 EMPLOYMENT	ANNUAL AVERAGE EMPLOYMENT	
		1980	1981
TOTAL (non-agricultural Ind.)	289.2	280.4	285.2
Mining	10.3	8.8	11.5
Construction	14.6	14.5	13.4
Manufacturing	21.7	24.2	23.5
Transportation, Communications & Public Utilities	23.0	22.4	22.7
Wholesale Trade	18.5	17.8	18.2
Retail Trade	58.6	54.5	55.5
Finance, Insurance, and Real Estate	12.7	12.9	12.9
Service & Miscellaneous	58.1	55.1	56.7
Public Administration*	71.7	70.2	70.7

SOURCE: CURRENT EMPLOYMENT STATISTICS PROGRAM.

* Includes all civilian employees of federal, state and local government regardless of the activity in which the employee is engaged.

TABLE 7

JOB SERVICE JOB OPENINGS AVAILABLE BY INDUSTRY

QUARTER ENDING JUNE 30, 1982

SIC	INDUSTRY	JOBS RECEIVED DURING QUARTER	JOBS FILLED DURING QUARTER
	TOTAL	16,303	14,339
01-07	Agriculture	1,269	888
10-14	Mining	121	87
15-17	Construction	697	644
20-39	Manufacturing	713	920
40-49	Transportation, Comm., & Public Utilities	773	449
50-51	Wholesale Trade	632	568
52-59	Retail Trade	2,440	2,116
60-67	Finance, Insurance, & Real Estate	294	240
70-89	Service	5,782	4,772
91-97	Public Administration	925	871
	Nonclassifiable	39	38

SOURCE: ESARS TABLE 12

TABLE 8

STATUS OF JOB SERVICE OPENINGS BY OCCUPATIONAL CATEGORY

QUARTER ENDING JUNE 30, 1982

OCCUPATIONS	OPENINGS START OF QUARTER	OPENINGS REC'D DURING QUARTER	OPENINGS FILLED DURING QUARTER	POSITION UNFILLED END OF QUARTER	POSITIONS OPEN 30 DAYS OR MORE
TOTAL*	2,400	15,034	13,193	3,123	2,296
Prof.,Tech.,Mgr.	840	2,445	1,847	1,284	1,101
Clerical, Sales	532	2,605	2,182	568	338
Service	488	4,677	4,176	649	434
Agricultural	75	591	592	65	34
Processing	39	62	65	18	16
Machine Trades	52	379	315	74	32
Bench Work	29	187	162	43	36
Structural	107	1,232	1,116	165	113
Miscellaneous	237	2,850	2,737	251	190
Invalid Codes	1	6	1	6	2

* Totals across matrix will not balance as job openings are periodically cancelled.
SOURCE: ESARS TABLE 96.

TABLE 9

JOB SERVICE LISTED JOB OPENINGS
OCCUPATIONS WITH 10 OR MORE OPENINGS

END OF QUARTER -- JUNE 30, 1982

DOT CODE	OCCUPATIONAL TITLE	UNFILLED-START OF QUARTER	RECEIVED DURING QUARTER	FILLED DURING QUARTER	UNFILLED - END OF QUARTER	OPEN 30 DAYS OR MORE
045-107-010	Counselor, Educ./Voc.	7	17	10	11	6
090-227-010	Faculty, College, Univ.	15	14	1	23	19
201-362-030	Secretary	15	110	83	26	12
203-362-010	Clerk-Typist	18	96	85	18	6
205-367-054	Survey Worker	6	62	59	16	5
206-362-010	File Clerk I	0	19	8	11	0
209-562-010	Clerk, General	43	293	268	51	40
210-382-014	Bookkeeper, Full Charge	20	56	49	13	8
211-462-010	Cashier II	9	86	68	10	7
219-362-010	Administrative Clerk	34	170	143	26	12
237-367-038	Receptionist	16	83	67	17	9
249-367-074	Teacher Aide	55	67	60	62	62
279-357-054	Sales, Gen. Merchandise	7	40	28	13	8
290-477-014	Sales Clerk	48	190	149	45	29
299-357-014	Telephone Solicitor	24	71	69	12	6
301-474-010	Houseworker, General	16	139	128	17	12
311-477-014	Counter, Attendant	39	257	233	28	19
311-477-030	Waiter/Waitress, Informal	17	96	70	22	20
312-474-010	Bartender	7	54	43	11	7
313-361-014	Cook (Hotel & Restaurant)	33	207	181	25	15
315-361-010	Cook	13	40	22	13	8
318-687-010	Kitchen Helper	38	214	188	37	21
323-687-014	Cleaner, Housekeeper	47	301	261	63	29
355-674-014	Nurse's Aide	18	113	103	22	17
372-667-034	Guard, Security	20	38	49	10	9
382-664-010	Janitor	35	233	203	44	27
620-261-010	Auto Mechanic	15	50	36	11	6
860-381-022	Carpenter	9	96	83	16	10
869-664-014	Construction Worker	30	358	343	32	23
929-687-030	Material Handler	74	1854	1808	108	69
950-382-026	Stationary Engineer	40	107	118	21	21

SOURCE: ESARS TABLE 96

TABLE 10
DISTRIBUTION OF EMPLOYMENT
BY MAJOR OCCUPATIONAL GROUP
1976 AND PROJECTED 1985

MAJOR OCCUPATIONAL GROUP	1976 EMPLOYMENT	1976 PERCENT DISTRIBUTION	PROJECTED 1985 EMPLOYMENT	PROJECTED 1985 PERCENT DISTRIBUTION	PERCENT CHANGE 1976-1985
TOTAL ALL OCCUPATIONS	314,750	100.0	417,380	100.0	32.6
WHITE COLLAR WORKERS	148,650	47.2	201,960	48.4	35.9
Professional, Technical and Kindred	46,210	14.7	62,170	14.9	34.5
Managers, Officials, and Properietors	40,780	13.0	54,900	13.2	34.6
Sales Workers	16,990	5.4	22,140	5.3	30.3
Clerical Workers	44,670	14.2	62,750	15.0	40.5
BLUE COLLAR WORKERS	87,180	27.7	116,890	28.0	34.1
Craft and Kindred Workers	39,470	12.5	55,740	13.4	41.2
Operatives	32,120	10.2	41,060	9.8	27.8
Laborers, Except Farmers	15,590	5.0	20,090	4.8	28.9
SERVICE WORKERS	46,790	14.9	66,430	15.9	42.0
FARMERS AND FARM WORKERS	32,130	10.2	32,100	7.7	-0.1

SOURCE: MONTANA INDUSTRY/OCCUPATION PROJECTIONS, FIFTH EDITION.

TABLE 11

TOTAL EMPLOYMENT BY OCCUPATIONAL CATEGORY
1976-1985

OCCUPATIONAL GROUP	1976	1985	PERCENT CHANGE
TOTAL ALL OCCUPATIONS	314,750	417,380	32.6
Professional, Technical and Kindred	46,210	62,170	34.5
Engineers, Technical	2,410	3,220	33.6
Life and Physical Scientist	1,480	1,830	23.4
Mathematical Specialist	70	90	33.3
Engineers, Science Tech.	2,850	3,870	35.8
Medical Workers, Exc. Tech.	6,300	9,440	49.8
Health Technol. & Tech.	1,420	2,040	43.1
Technicians, Exc. Health	1,010	1,370	35.0
Computer Specialist	440	590	36.3
Social Scientists	390	570	45.5
Teachers	15,200	20,700	36.1
Writers, Artists, Entertainers	3,040	4,090	34.7
Other Professional, Technical	11,600	14,380	23.9
Managers, Officials, Proprietors	40,780	54,900	34.6
Buyers, Sales, Loan Managers	5,270	8,151	54.8
Administrators, Pub. Inspectors	5,340	7,300	36.7
Other Managers, Officials, Props.	30,170	39,450	30.8
Sales Workers	16,990	22,140	30.3
Clerical Workers	44,670	62,750	40.5
Stenographers, Typists, Secretaries	12,320	17,680	43.6
Office Machine Operators	1,200	1,340	11.7
Other Clerical Workers	31,150	43,730	40.4
Craft & Kindred Workers	39,470	55,740	41.2
Construction Craft Workers	13,850	21,180	52.9
Blue Collar Worker Supv., N.E.C.	3,810	5,310	39.3
Metalworking Craft Workers, Exc.Mec	1,750	2,360	34.3
Printing Trade Craft Workers	840	830	-1.2
Trans., P.U. Craft	2,030	3,080	51.6
Other Craft, Kindred Workers	5,210	6,820	30.8

SOURCE: MONTANA INDUSTRY/OCCUPATION PROJECTIONS, FIFTH EDITION.

TABLE 11

TOTAL EMPLOYMENT BY OCCUPATIONAL CATEGORY
1976-1985

OCCUPATIONAL GROUP	1976	1985	PERCENT CHANGE
Operatives	32,120	41,060	27.8
Operatives, Exc. Transport	20.080	26,190	30.4
Transport Equip. Operatives	12,040	14,880	23.5
Service Workers	46,790	66,430	42.0
Cleaning Service Workers	9,850	14,100	43.1
Food Service Workers	19,420	27,890	43.6
Health Service Workers	6,360	9,910	55.7
Personal Service Workers	6,480	8,960	38.4
Protective & Service Workers	2,860	4,170	46.1
Private Household Workers	1,860	1,410	-24.2
Laborers, Except Farm	15,590	20.090	28.9
Farmers & Farm Workers	32,130	32,100	-0.1
Farmers & Farm Managers	18,220	19,670	7.9
Farm Laborers, Farm Supvrs.	13,900	12,430	-10.6

TABLE 12
TOTAL ANNUAL AVERAGE JOB OPENINGS
DUE TO GROWTH AND LABOR FORCE SEPARATIONS
BY SELECTED OCCUPATIONAL GROUP
1976-1985

OCCUPATIONAL GROUP	OPENINGS DUE TO GROWTH	OPENINGS DUE TO SEPARATIONS	TOTAL OPENINGS	PERCENT OF TOTAL
TOTAL ALL OCCUPATIONS	11,400	12,360	23,770	100.0
Professional, Technical & Kindred	1,770	1,530	3,300	13.9
Engineers, Technical	90	40	130	0.6
Life and Physical Scientist	40	30	70	0.3
Mathematical Specialist	*	*	*	0.0
Engineers, Science Tech.	110	50	160	0.7
Medical Workers, Exc. Tech.	350	240	590	2.5
Health Technol. & Tech.	70	40	110	0.5
Technicians, Exc. Health	40	30	70	0.3
Computer Specialist	20	*	20	0.1
Social Scientists	20	10	30	0.1
Teachers	610	600	1,210	5.1
Writers, Artists, Entertainers	120	90	210	0.9
Other Professional, Technical	310	400	710	3.0
Managers, Officials, Proprietors	1,570	1,830	3,400	14.2
Buyers, Sales, Loan Managers	320	180	500	2.1
Administrators, Pub. Inspectors	220	280	500	2.1
Other Managers, Officials, Prop.	1,030	1,380	2,410	10.1
Sales Workers	570	700	1,270	5.3
Clerical Workers	2,010	1,770	3,780	15.9
Stenographers, Typists, Secre.	600	500	1,100	4.6
Office Machine Operators	20	30	50	0.2
Other Clerical Workers	1,400	1,240	2,640	11.1
Craft & Kindred Workers	1,810	1,250	3,060	12.9
Construction Craft Workers	810	490	1,300	5.5
Blue Collar Workers Supv., N.E.	170	130	300	1.3
Metalworking Craft Wrks.Exc.Mec.	70	50	120	0.5
Mechanics, Repairers/Installers	470	320	790	3.3

* Denotes occupations with annual openings less than 10.
SOURCE: MONTANA INDUSTRY/OCCUPATIONS PROJECTIONS, FIFTH EDITION.

TABLE 12 (cont.)
TOTAL ANNUAL AVERAGE JOB OPENINGS
DUE TO GROWTH AND LABOR FORCE SEPARATIONS
BY SELECTED OCCUPATIONAL GROUP
1976-1985

OCCUPATIONAL GROUP	OPENINGS DUE TO GROWTH	OPENINGS DUE TO SEPARATIONS	TOTAL OPENINGS	PERCENT OF TOTAL
Printing Trade Craft Workers	*	20	20	0.1
Trans., P.U. Craft	120	40	160	0.7
Other Craft, Kindred Workers	180	190	370	1.6
Operatives	990	840	1,830	7.7
Operatives, Exc. Transport	680	560	1,240	5.2
Transport Equip, Operatives	310	280	590	2.5
Service Workers	2,180	2,400	4,580	19.3
Cleaning Service Workers	470	640	1,110	4.7
Food Service Workers	940	870	1,810	7.6
Health Service Workers	390	300	690	2.9
Personal Service Workers	280	370	650	2.7
Protective & Service Workers	150	130	280	1.2
Private Household Workers	-50	90	40	0.2
Laborers, Except Farm	500	450	950	4.0
Laborers & Farm Workers	*	1,590	1,590	6.7
Farmers & Farm Managers	160	1,140	1,300	5.5
Farm Laborers, Farm Supervisors	-160	460	300	1.3

TABLE 13

SELECTED OCCUPATIONS HAVING
HIGH GROWTH RATES 1976 - 1985

OCCUPATION	TOTAL EMPLOYMENT 1976	TOTAL EMPLOYMENT 1985	PERCENT CHANGE
Professional, Technical, Kindred			
Chiropractors	90	137	52.2
Dentist	471	728	54.6
Optometrists	414	793	91.6
Podiatrists	129	234	81.4
Therapists	535	876	63.7
Veterinarians	105	167	59.0
Clinical Lab Technicians	619	934	50.9
Radiologic Technician	306	482	57.5
Airplane Pilots	195	311	59.5
Urban & Regional Planners	64	111	73.4
Elementary School Teachers	6,387	10,144	58.8
Preschool, Kindergarten	838	1,506	79.7
Atheletes & Kindred Workers	231	324	56.7
Architects	216	325	50.5
Clergy	1,032	1,580	53.1
Religious, except Clergy	222	341	53.6
Managers, Officials, Proprietors			
Bank, Financial Managers	2,073	3,523	70.0
Buyer, Wholesale, Retail	395	615	55.7
School Administrator elem., secondary	1,379	2,318	68.1
Managers, Superintendents, Buildings	398	601	51.0
Railroad Conductors	385	665	72.7

SOURCE: MONTANA INDUSTRY/OCCUPATION PROJECTIONS, FIFTH EDITION.

TABLE 13 (cont.)

SELECTED OCCUPATIONS HAVING
HIGH GROWTH RATES 1976 - 1985

OCCUPATION	TOTAL EMPLOYMENT 1976	TOTAL EMPLOYMENT 1985	PERCENT CHANGE
Clerical Workers			
Secretaries, Legal	388	590	52.1
Secretaries, Medical	240	517	115.4
Secretaries, Other	8,692	13,153	51.3
Billings Clerk	397	721	81.6
Meter Reader, Utilities	131	238	81.7
Teacher Aides, exc. Monitors	1,203	2,606	116.6
Miscellaneous Clerk Workers	2,933	6,139	109.3
Craft & Kindred Workers			
Carpenters and Apprentices	5,767	8,770	52.1
Bulldozer Operators	798	1,361	70.6
Cement & Concrete Finishers	136	262	92.7
Electricians & Apprentices	1,850	2,881	55.7
Plumbers, Pipefitters	1,336	2,061	54.3
Structural Metal Craft Workers	240	450	87.5
Air Cond., Heating, Refrig. Mechanic	345	487	75.4
Household Appliance Mechanic	528	874	65.5
Office Machine Repairs	222	422	90.1
Electric Power Line Installer, Repairs	437	858	96.3
Glaziers	136	216	58.8
Opticians, Lens Grinders, Polishers	278	512	84.2
Operatives			
Blasters	80	179	123.8

TABLE 13 (cont.)

SELECTED OCCUPATIONS HAVING
HIGH GROWTH RATES 1976 - 1985

OCCUPATION	TOTAL EMPLOYMENT 1976	TOTAL EMPLOYMENT 1985	PERCENT CHANGE
Operatives			
Drillers, Earth	644	980	52.2
Photographic Process Workers	178	292	64.0
Rail Vehicle Operators	131	296	126.0
Railroad Brake Operators	508	779	53.4
Service Workers			
Lodging Quarter Cleaners, exc. Private	1,349	2,550	89.0
Building Interior Cleaners, nec.	3,334	5,154	54.6
Food Counter, Fountain Workers	1,274	2,048	60.8
Dental Assistants	397	792	99.5
Health Aides, exc. Nursing	673	1,196	77.7
Practical Nurses	1,384	2,272	64.2
Child Care Workers, exc. Private	1,990	3,748	88.3
Guards	807	1,221	51.3
Police & Detectives	1,158	1,776	52.5
Farmers and Farm Workers			
Farm Managers	860	2,015	134.3

TABLE 14

SELECTED OCCUPATIONS HAVING
ANNUAL AVERAGE OPENINGS GREATER THAN 100

OCCUPATION	ANNUAL AVERAGE OPENINGS
Professional, Technical, Kindred	
Registered Nurses	269
Elementary School Teachers	735
Preschool, Kindergarten	112
Secondary School Teachers	264
Accountants	179
Clergy	116
Managers, Officials, Proprietors	
Bank, Financial Managers	232
Sales Manager, Retail Trade	107
Officials, Administrators, Public	152
School Admin. Elementary, Secondary	158
Office Managers, nec.	158
Restaurant, Cafe, Bar Managers	210
Sales Workers	
Insurance Agents, Brokers, etc.	107
Real Estate Agents, Brokers	145
Clerical Workers	
Secretaries, other	870
Typist	142
Bookkeepers	491
Cashiers	313
Counter Clerks, exc. Food	161
Receptionist	176
Teachers Aides, exc. Monitors	211
Miscellaneous Clerical Workers	507

SOURCE: MONTANA INDUSTRY/OCCUPATION PROJECTIONS, FIFTH EDITION.

TABLE 14 (cont.)

SELECTED OCCUPATIONS HAVING
ANNUAL AVERAGE OPENINGS GREATER THAN 100

OCCUPATION	ANNUAL AVERAGE OPENINGS
Craft and Kindred Workers	
Carpenters and Apprentices	583
Electricians and Apprentices	168
Excavating, Grading, Machine Operators	184
Plumbers, Pipefitters, Apprentices	132
Auto Mechanics and Apprentices	232
Heavy Equipment Mechanics	195
Operatives	
Welders and Flame Cutters	124
Garage Workers, Gas Station Attendants	123
Laundry, Dry Cleaning Operators	101
Mine Operatives	108
Sawyers	108
Miscellaneous Machine Operators	124
Delivery and Route Workers	129
Truck Drivers	271
Service	
Lodging Quarter Cleaners	223
Building Interior Cleaners	438
Janitors and Sextons	447
Bartenders	277
Cooks	613
Dishwashers	116
Food Counter, Fountain Workers	133
Waiters	516
Nurses Aides, Orderlies	369
Practical Nurses	180

TABLE 14 (cont.)

SELECTED OCCUPATIONS HAVING
ANNUAL AVERAGE OPENINGS GREATER THAN 100

OCCUPATION	ANNUAL AVERAGE OPENINGS
Service	
Child Care Workers	344
Hairdressers, Cosmetologist	117
Guards	120
Laborers, exc. Farm	
Construction Laborer	169
Freight, Material Handlers	130
Gardeners, Groundskeeper	149
Stock Handlers	128
Farmers and Farm Workers	
Farm Managers	215
Farm Laborers, Wage Workers	171

TABLE 15

SELECTED OCCUPATIONS HAVING
NEGATIVE GROWTH RATE 1976-1985

OCCUPATION	TOTAL EMPLOYMENT 1976	TOTAL EMPLOYMENT 1985	PERCENT CHANGE
Professional, Technical, Kindred			
Atmospheric, Space Scientist	241	224	-7.1
Farm Management Advisors	105	55	-47.6
Research Workers, Inc.	439	350	-20.3
College & University Teachers	2,232	1,769	-20.7
Manager, Official, Proprietors			
Postmasters and Mail Supervisors	296	227	-23.3
School Administrators, College	302	266	-10.9
Officials of Lodges, Unions	275	180	-34.5
Sales Workers			
Newspaper Carrier & Vendors	404	343	-15.1
Clerical Workers			
Stenographers	766	573	-25.2
Keypunch Operators	498	392	-21.3
Mail Carriers, Post Office	777	648	-16.6
Postal Clerks	831	616	-25.9
Telegraph Operators	207	168	-18.8
Enumerators & Interviewers	602	395	-65.6
Crafts and Kindred Workers			
Blacksmiths	43	25	-41.9
Compositors and Typesetters	528	474	-10.2

SOURCE: MONTANA INDUSTRY/OCCUPATION PROJECTIONS, FIFTH EDITION.

TABLE 15 (cont.)

SELECTED OCCUPATIONS HAVING
NEGATIVE GROWTH RATE 1976-1985

OCCUPATION	TOTAL EMPLOYMENT 1976	TOTAL EMPLOYMENT 1985	PERCENT CHANGE
Crafts and Kindred Workers			
Locomotive Engineer Helpers	75	64	-14.7
Bakers	388	387	-0.3
Operatives			
Grinding Machine Operatives	63	55	12.7
Clothing Ironers & Pressers	310	286	-7.7
Filer, Polisher, Sander, Buffer	150	146	-2.7
Bus Driver	1,547	1,302	-15.8
Taxicab Drivers, Chauffeurs	233	228	-2.2
Service Workers			
Baggage Porters & Bellhops	77	40	-48.1
Barbers	577	481	16.6
Elevator Operators	72	67	-6.9
Child Care Workers, Private	1,297	1,007	-22.4
Housekeepers, Private	170	109	-35.9
Farmers and Farm Workers			
Farm Laborers, Wage Workers	12,042	10,020	-16.8

GLOSSARY OF TERMS

ACTIVE APPLICANT:	Person considered currently available for referral to job openings or employability development services.
CIVILIAN LABOR FORCE:	The number of persons 16 years and older, employed or unemployed, excluding members of the Armed Forces.
CURRENT EMPLOYMENT STATISTICS PROGRAM:	Prepares monthly estimates of current non-agricultural employment, hours, and earnings.
DOT (Dictionary of Occupational Titles):	A publication which lists about 20,000 jobs with concise definitions. A nine digit coding system is used for occupational classification.
ESARS (Employment Service Automated Reporting System):	Primarily concerned with providing cumulative data on individuals being served by Job Service. Some industry data is also provided.
LABOR DEMAND:	The number of job oppportunties in specific occupations.
LABOR SUPPLY:	The number of individuals who are qualified for and seeking work in a specific occupation.
PARTIAL APPLICANTS:	An applicant who has completed a minimum of entries on the application record, and who has not been assigned an occupational code.

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